

# STARS ACADEMY LAHORE

Head office: 590-Q Main Boulevard, Johar Town Lahore, 0321-9432186, 0321-4693044, www.stars.edu.pk



## STARS ENTRY TEST SYSTEM-2018

### MDCAT

Test Code : B4

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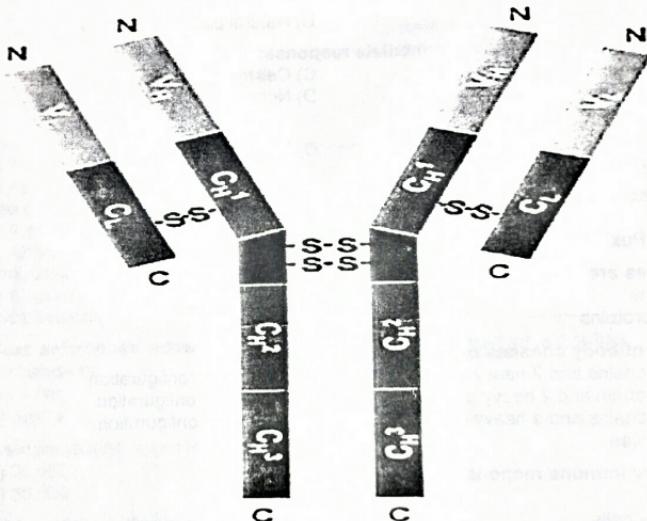
Time Allowed: 40min

1. Organisms belonging to phylum arthropoda are?  
A) Diploblastic      C) Triploblastic  
B) Monoblastic      D) Deuterostomes
2. Sleeping sickness is spread by?  
A) Anopheles      C) Tse tse fly  
B) House fly      D) Honey bee
3. The exoskeleton of arthropods is in the form of an outer covering the procuticle which is formed chiefly of?  
A) Silica      C) Chitin  
B) Calcium carbonates      D) Lignin
4. The body cavity of arthropods is called:  
A) Blastocoel      C) Haemocoel  
B) Hetrocoel      D) Spongocoel
5. The most common arthropods, on the earth are:  
A) Crustaceans      C) Arachnids  
B) Myriapods      D) Insects
6. Coelom is cavity present between body wall and alimentary canal and is lined by?  
A) Ectoderm      C) Mesoderm  
B) Endoderm      D) Choanoderm
7. Which of the following endoparasite is found in small intestine?  
A) Dugseaia      C) Pin worms  
B) Hook worms      D) Fasciola hepatica
8. Schistosoma is known as?  
A) Liver fluke      C) Ship fluke  
B) Blood fluke      D) All
9. The name platyhelminthes means:  
A) Round worms      C) Flatworms  
B) Segmented worms      D) Shipworm
10. Which of these develops from the endoderm?  
A) Nervous system      C) Reproductive system  
B) Lining of gut      D) Skeleton
11. Pseudocoelom of round worms consists of a number of vacuolated cells filled with a protein rich fluid that develops high?  
A) Osmotic pressure      C) Diffusion pressure  
B) Partial pressure      D) Hydrostatic pressure
12. Ascaris lumbricoides is a intestinal parasite of:  
A) Horse      C) Man  
B) Donkey      D) Monkey
13. Anchylostoma duodenale is commonly known as:  
A) Ship worm      C) Hook worm  
B) Tape worm      D) Pin worm
14. Germinal layers found in all animals  
A) Ectoderm and mesoderm      C) mesoglea and ectoderm  
B) Mesoderm and endoderm      D) ectoderm and endoderm
15. Pseudocoelom is derived from the hollow space, blastocoel, situated in the:  
A) Gastrula      C) Blastula  
B) Neurula      D) Morula

16. The nematode are commonly known as:  
A) Round worm  
B) Pointed ends  
C) Flatworm  
D) Blunt ends
17. **Dugesia, fasciola and taenia are common examples of:**  
A) Round worms  
B) Segmented worms  
C) Flatworms  
D) Pinworm
18. The excretory system of platyhelminthes consists of branching tubes ending in bulb-like cells, the:  
A) Flame cells  
B) Bowman cells  
C) Fire cells  
D) Blaze cells
19. in deuterostomes, blastopore develops into?  
A) Anus  
B) Mouth  
C) Both anus and mouth  
D) Coelom
20. Which one of the following is not insect  
A) Wasps  
B) House fly  
C) Beetles  
D) Daphnia
21. Nematods are included in group  
A) Deuterostomia  
B) Bilateria  
C) Proterostomia  
D) Radiata - Proterostomia
22. The scientific name of Pinworm is \_\_\_\_\_ and included in phylum \_\_\_\_\_.  
A) Taenia solium, Platyhelminthes  
B) Ascaris Lumbricoidis, Nematoda  
C) Aeglostoma duodenale, Nematoda  
D) Enterobius Vermicularis, Aschelminthes
23. The one which have organisms abundantly found on earth?  
A) Annelids  
B) Arthropods  
C) Molluscs  
D) Echinoderms
24. Integumentary system is developed from  
A) Ectoderm  
B) Endoderm  
C) Mesoderm  
D) Hypodermis
25. Most arthropods possess an extensive system formed of air tubes called trachea for the exchange of:  
A) Water  
B) Gases  
C) Food  
D) Minerals
26. A single rotting apple may contain how many worms  
A) 30,000  
B) 60,000  
C) 90,000  
D) 100,000
27. Which of the following is Pseudocoelomates  
A) Flatworms  
B) Round worms  
C) Annelids  
D) Porifera
28. Worms can removed by  
A) Anema  
B) Drugs  
C) Surgery  
D) All methods can be used
29. Secondary host of Fasciola hepatica is  
A) Sheep  
B) Man  
C) Snail  
D) Pig
30. Which one is not adaptation for parasitic mode of life of platyhelminthes  
A) Absence of epidermis  
B) Simplified digestive system  
C) Developed a complicated reproductive system  
D) Developed muscular system
31. The main parts of the proglottids of worms are  
A) Excretory organs  
B) Digestive organs  
C) Reproductive organs  
D) Nervous system
32. The systems which is absent in Round worms?  
A) Nervous system  
B) Digestive system  
C) Transport system  
D) A and B
33. In coelenterates which of the following germinal layer is present  
A) Ectoderm  
B) Endoderm  
C) Mesoderm  
D) Both A & B
34. Components of immune system are not  
A) B-lymphocytes  
B) T-lymphocytes  
C) Anti bodies  
D) None of these



53. Tapeworm remain embedded in the form of cyst in \_\_\_\_\_ of cow.  
 A) cardiac muscle C) voluntary muscle  
 B) smooth muscle D) involuntary muscle
54. HIV attacks  
 A) T helper cells C) B cells  
 B) T cytotoxic cells D) Macrophages
55. The immunity acquired by inoculation of living organism of attenuated virulence is  
 A) Artificial active immunity C) Natural active immunity  
 B) Passive immunity D) innate immunity
56. Innate immunity is  
 A) Specific C) Active  
 B) Non-specific D) Passive
57. In following figure how many disulphide bridges are found in heavy and light chains



- A) One C) Three  
 B) Two D) Four
58. In above figure how many variable regions heavy chains have  
 A) One C) Three  
 B) Two D) Four
59. Acquired immunity can be developed by  
 A) Natural means C) Both A and B  
 B) Artificial means D) None of these
60. The digestive system with two openings is found in  
 A) planaria C) Ascaris lumbricoides  
 B) Liver fluke D) Schistostoma

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**Roll No. of Candidate**

**Name of Candidate**

**STARS ENTRY TEST SYSTEM-2018**  
**MDCAT**

Test Code : P 4

11

**Time Allowed: 40min**

1. An electric motor of 12 horse-power generates an angular velocity of 125 rad/s. What will be the frequency of rotation?  
 A)  $20$  C)  $20/2\pi$   
 B)  $20/\pi$  D)  $40$

2. The ratio of angular speeds of seconds hand and hour hand of a watch is  
 A)  $1 : 720$  C)  $1 : 60$   
 B)  $60 : 1$  D)  $720 : 1$

3. A body moves with constant angular velocity on a circle. Magnitude of angular acceleration is  
 A)  $\omega r^2$  C) zero  
 B) constant D)  $r\omega$

4. A wheel having a diameter of 3 m starts from rest and accelerates uniformly to an angular velocity of  $210 \text{ r.p.m.}$  in 5 seconds. Angular acceleration of the wheel is  
 A)  $4.4 \text{ rad s}^{-2}$  C)  $2.2 \text{ rad s}^{-2}$   
 B)  $3.3 \text{ rad s}^{-2}$  D)  $1.1 \text{ rad s}^{-2}$

5. If a particle moves in a circle describing equal angles in equal intervals of time, the velocity vector  
 A) remains constant. C) changes in direction only.  
 B) changes in magnitude only. D) changes both in magnitude and direction

6. Which of the following is an axial vector?  
 A) Torque C) Angular Velocity  
 B) Angular Displacement D) All of these

7. A particle of mass  $1 \text{ kg}$  is revolved in a horizontal circle of radius  $1 \text{ m}$  with the help of a string. If the maximum tension the string can withstand is  $16\pi^2 \text{ N}$ , then the maximum frequency with which the particle can revolve is  
 A)  $3 \text{ Hz}$  C)  $4 \text{ Hz}$   
 B)  $2 \text{ Hz}$  D)  $5 \text{ Hz}$

8. Angle between radius vector and centripetal acceleration is  
 A)  $0^\circ$  C)  $180^\circ$   
 B)  $90^\circ$  D)  $45^\circ$

9. The angular displacement in circular motion is  
 A) dimensionless quantity. C) unitless and dimensionless quantity.  
 B) dimensionless quantity. D) unitless quantity.

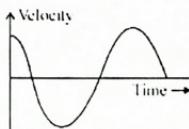
10. A flywheel rotates at a constant speed of  $3000 \text{ r.p.m.}$  The angle described by the shaft in one second is  
 A)  $3\pi \text{ rad}$  C)  $100\pi \text{ rad}$   
 B)  $30\pi \text{ rad}$  D)  $3000\pi \text{ rad}$

11. What is the angular speed of the seconds hand of a watch?  
 A)  $60 \text{ rad/s}$  C)  $\pi/30 \text{ rad/s}$   
 B)  $\pi \text{ rad/s}$  D)  $2 \text{ rad/s}$

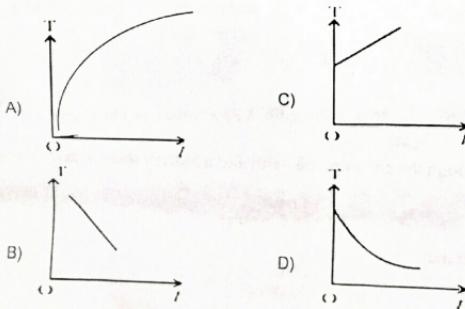
12. A body of mass  $100 \text{ g}$  is revolving in a horizontal circle. If its frequency of rotation is  $3.5 \text{ r.p.s.}$  and radius of circular path is  $0.5 \text{ m}$ , the angular speed of the body is  
 A)  $18 \text{ rad/s}$  C)  $22 \text{ rad/s}$   
 B)  $20 \text{ rad/s}$  D)  $24 \text{ rad/s}$

13. A wheel has circumference C. If it makes "f" r.p.s., the linear speed of a point on the circumference is  
 A)  $2\pi fC$       C)  $fC/2\pi$   
 B)  $fC$       D)  $fC/10$
14. A body is whirled in a horizontal circle of radius 20 cm. It has angular velocity of 10 rad/s. What is its linear velocity at any point on circular path?  
 A) 10 m/s      C) 20 m/s  
 B) 2 m/s      D) 2 m/s
15. A particle moves along a circular orbit with constant angular velocity. This necessarily means,  
 A) its motion is confined to a single plane.  
 B) its motion is not confined to a single plane.  
 C) nothing can be said regarding the plane of motion.  
 D) its motion is one-dimensional.
16. A mass of 5 kg is tied to a string of length 1.0 m and is rotated in vertical circle with a uniform speed of 4 m/s. The tension in the string will be 130 N when the mass is at ( $g = 10 \text{ m/s}^2$ )  
 A) highest point      C) bottom  
 B) mid way      D) cannot be justified
17. A can filled with water is revolved in a vertical circle of radius 4 m and water does not fall down. The time period of revolution will be  
 A) 2 s      C) 6 s  
 B) 4 s      D) 8 s
18. For SHM, which of the following becomes maximum at extreme position?  
 A) K.E      C) Velocity  
 B) P.E      D) None of these
19. An earth satellite is moving around the earth in a circular orbit. In this case, which of the following quantities is conserved?  
 A) Velocity      C) Angular momentum  
 B) Linear Momentum      D) Angular velocity
20. A body travelling in a circular path at constant speed  
 A) Has a constant velocity      C) has an inward acceleration  
 B) is not accelerated      D) has transverse acceleration
21. A satellite is revolving around the earth in a circular orbit of radius R. Its period of revolution varies as  
 A)  $R^2$       C)  $R$   
 B)  $R^{3/2}$       D)  $R^{1/2}$
22. Two satellites of mass M and  $3M$  are revolving around the earth in circular orbits of radii  $3R$  and  $R$  respectively. What is the ratio of their speeds?  
 A) 3:1      C)  $\frac{1}{\sqrt{3}}:1$   
 B)  $\sqrt{3}:1$       D) 1:1
23. On earth, weight of an object is maximum at:  
 A) Equator      C) Center of earth  
 B) Poles      D) None of these
24. Which of the following is a simple harmonic motion?  
 A) Particle moving through a string fixed at both ends.  
 B) Wave moving through a string fixed at both ends.  
 C) Earth spinning about its axis.  
 D) Ball bouncing between two rigid vertical walls.
25. Starting from extreme position, an object executes SHM such that it covers half of amplitude in 1 sec then time period of oscillator is:  
 A) 4 s      C) 8 s  
 B) 6 s      D) 12 s

26. A block of mass 4 kg is attached to a spring of  $K=400 \text{ N/m}$  and is executing SHM with an amplitude of 6cm. If the block is at  $X=6\text{cm}$  at  $t=0$ , then which of the following equation is correct?
- A)  $X=6\sin(10t + \frac{1}{2}\pi)$   
 B)  $X = 6 \sin(10\pi t)$   
 C)  $X = 6 \sin(10t - \frac{1}{2}\pi)$   
 D)  $X = 6 \sin 10t$
27. Acceleration of a particle executing SHM, at its mean position is  
 A) Infinity  
 B) variable  
 C) maximum  
 D) zero
28. If an SHM is executed with frequency  $f$ , the frequency with K.E changes is:  
 A)  $f$   
 B)  $f/2$   
 C)  $f/4$   
 D)  $2f$
29. A particle is executing S.H.M. having time period  $T$ , then the time period with which the potential energy changes is  
 A)  $T$   
 B)  $2T$   
 C)  $T/2$   
 D)  $\infty$
30. If the magnitude of the displacement is numerically equal to that of acceleration, then the time period is  
 A) 1 second  
 B)  $\pi$  second  
 C)  $2\pi$  second  
 D)  $4\pi$  second
31. The graph shown in the figure represents



- A) motion of a simple pendulum starting from mean position  
 B) motion of a simple pendulum starting from a extreme position  
 C) Simple pendulum describing a horizontal circle  
 D) None of these
32. The period of oscillation of a mass  $M$  suspended from a spring of negligible mass is  $T$ . If along with it another mass  $M$  is also suspended, the period of oscillation will now be  
 A)  $T$   
 B)  $T/\sqrt{2}$   
 C)  $2T$   
 D)  $\sqrt{2}T$
33. A child is swinging on swing in sitting position stands up. The time period of the swing will.  
 A) Increase  
 B) decrease  
 C) remain same  
 D) Increase if the child is tall and decrease if the child is short
34. The graph of the time period ( $T$ ) of simple pendulum versus its length ( $l$ ) is



35. A simple pendulum has a metal bob, which is negatively charged. If it is allowed to oscillate above a positively charged metallic plate, then its time period will  
 A) Increase C) become zero  
 B) decrease D) remain the same
36. A pendulum is undergoing S.H.M. The velocity of the bob in the mean position is  $v$ . If now its amplitude is doubled, keeping the length same, its velocity in the mean position will be  
 A)  $v/2$  C)  $2v$   
 B)  $v$  D)  $4v$
37. A particle moves such that its acceleration ' $a$ ' is given by  $a=-bx$  where  $x$  is the displacement from equilibrium position and  $b$  is constant. The period of oscillation is  
 A)  $2\pi/b$  C)  $\sqrt{2\pi/b}$   
 B)  $2\pi/\sqrt{b}$  D)  $2\sqrt{\pi/b}$
38. Distance covered during one vibration of an oscillating body in terms of amplitude A is:  
 A) Zero C)  $2A$   
 B) A D)  $4A$
39. The tension in the string of a simple pendulum is  
 A) Remains Constant C) zero in mean position  
 B) maximum in extreme position D) maximum at mean position
40. Displacement covered during one vibration of an oscillating body in terms of amplitude A is:  
 A) Zero C)  $2A$   
 B) A D)  $4A$
41. Resonance is an example of  
 A) Tuning fork C) free vibration  
 B) forced vibration D) damped vibration
42. The total mechanical energy of a spring-mass system in simple harmonic motion is  $E = \frac{1}{2}mv^2 A^2$   
 Suppose the oscillating particle is replaced by another particle of double the mass while the amplitude A remain the same. The new mechanical energy will  
 A) Becomes  $2E$  C) Become  $\sqrt{2}E$   
 B) Become  $E/2$  D) remains same
43. What fraction of total energy is kinetic at half of amplitude during SHM?  
 A)  $1/2$  C)  $2/3$   
 B)  $1/4$  D)  $3/4$
44. A body of mass 5 kg is executing S.H.M about a fixed point O with an amplitude of 10 cm, its maximum velocity is 100 cm/s. Its velocity will be  $50 \text{ cm s}^{-1}$  at a distance(in cm)  
 A) 5 C)  $5\sqrt{3}$   
 B)  $5\sqrt{2}$  D)  $10\sqrt{2}$
45. Maximum acceleration of an object in SHM is  $24 \text{ m/s}^2$  and maximum velocity is  $16 \text{ m/s}$ . The amplitude of SHM is  
 A)  $\frac{3}{2} \text{ m}$  B)  $\frac{2}{3} \text{ m}$   
 C)  $\frac{32}{3} \text{ m}$  D)  $\frac{3}{32} \text{ m}$
46. A tunnel has been dug through the center of the earth and a ball is released in it. It executes S.H.M. with time period  
 A) 42 minutes C) 1 hour  
 B) 1 day D) 84.6 minutes
47. At resonance, the energy transfer becomes:  
 A) Minimum C) Zero  
 B) Maximum D) Negative

48. The length of a second's pendulum at the surface of earth is 1m. The length of the second's pendulum at the surface of moon where  $g$  is  $1/6$  th that at earth's surface is  
 A)  $1/6$  m  
 B) 6 m  
 C)  $1/36$ ,  
 D) 36 m
- The displacement of a S.H.M. doing particle when  $K.E.=P.E.$  (amplitude = 4 cm) is  
 A)  $2\sqrt{2}$  cm  
 B) 2 cm  
 C)  $\frac{1}{\sqrt{2}}$  cm  
 D)  $\sqrt{2}$  cm
50. A simple pendulum has its time period 't' Its time period in a lift which is moving upwards with acceleration  $3 \text{ ms}^{-2}$  is  
 A)  $t \sqrt{\frac{9.8}{12.8}}$   
 B)  $t \sqrt{\frac{12.8}{9.8}}$   
 C)  $t \sqrt{\frac{9.8}{5.8}}$   
 D)  $t \sqrt{\frac{5.8}{9.8}}$
51. Time period of second pendulum on surface of moon is:  
 A) 2 s  
 B)  $2 \times 6$  s  
 C)  $1/6$  s  
 D)  $2/6$  s
52. Three masses of 500g, 300g and 100 gram are suspended at the end of a spring as shown, and are in equilibrium. When the 500 g mass is removed, the system oscillates with a period of 2 second. When the 300 g mass is also removed, it will oscillate with a period of  
 A) 2s  
 B) 4s  
 C) 8s  
 D) 1s
53. If the mass shown in the figure is slightly displaced and then let go, then the system shall oscillate with a time period of  
 A)  $2\pi \sqrt{\frac{m}{3k}}$   
 B)  $2\pi \sqrt{\frac{3m}{2k}}$   
 C)  $2\pi \sqrt{\frac{3m}{2k}}$   
 D)  $2\pi \sqrt{\frac{3k}{m}}$
54. Which of the following becomes maximum at mean position?  
 A) P.E  
 B) Acceleration  
 C) Displacement  
 D) K.E
55. The time period of the oscillating system (see figure) is  
 A)  $T=2\pi \sqrt{\frac{m(k_1+k_2)}{k_1 k_2}}$   
 B)  $T=2\pi \sqrt{\frac{m(k_1+k_2)}{k_1-k_2}}$   
 C)  $T=2\pi \sqrt{\frac{m(k_1 k_2)}{k_1+k_2}}$   
 D)  $T=2\pi \sqrt{\frac{m(k_1 k_2)}{k_1-k_2}}$
56. The amplitude and time period of SHM are  $x_o$  and T respectively. The time taken by it in displacing from  $x=0$  to  $x=\frac{x_o}{2}$  will be  
 A) T  
 B)  $T/4$   
 C)  $T/12$   
 D)  $T/6$

57. The product of frequency and time period is:

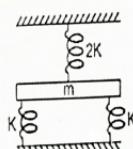
A) 0  
B)  $2\pi$

C)  $\pi$   
D) 1

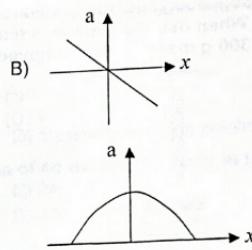
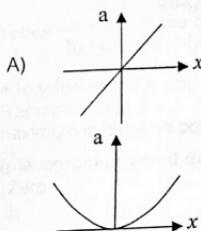
58. The spring constant form adjoin combination of spring is

A) K  
B)  $2K$

C)  $4K$   
D)  $5K/2$



59. Which graph Correctly represents the variation of acceleration  $a$  with displacement  $x$  for a body moving in SHM.



C)

D)

60. A simple pendulum is attached to the root of a lift has a root of time period of 2s in a stationary lift. If the lift is allowed to fall freely the frequency of oscillations of pendulum will be

A) Zero  
B) 2 Hz

C) 0.5 Hz  
D) infinity

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STARS ENTRY TEST SYSTEM-2018

MDCAT

Test Code : E4

Re-conduct

Time Allowed: 30min

## ENGLISH TEST

**Choose the correct word words to complete each sentence.**

- The \_\_\_\_\_ orders of the boss were ignored and the employee went on to corrupt the minds of other colleagues, too.  
A) Disingenuous C) Duplicitous  
B) Dictated D) Droll
  - The door attendant at the farewell party has \_\_\_\_\_ discretion over who can and who cannot enter the hall.  
A) Electrolytes C) Dexter  
B) Evanescent D) Discretion
  - You need to continue the pruning and trimming of bushes and \_\_\_\_\_ trees, and the destruction of virulent insects.  
A) Espalier C) Arboreal  
B) Euphonious D) Epicenter
  - The politicians often back out of their pledges since they \_\_\_\_\_ in public gatherings and the dual meanings are often elusive to the audience.  
A) Empower C) Enhance  
B) Equivocate D) Eschew

**SPOT THE ERROR:** In the following sentences some segments of each sentence are underlined. Your task is to identify that underlined segment of the sentence, which contains the mistake that needs to be corrected. Fill the circle corresponding to that letter under the segment in the MCQ Response Form.

5. I couldn't get admission in medical college because I was much complacent with my studies.  
A B C D

6. The child was fairly eating me over with her cold, steady eyes, and no expression on her face whatever.  
A B C D

7. I saw a black turtle in the Lahore zoo whose carapace was harder than any turtle.  
A B C D

8. He thought of the Gulistan as one of the bible of the world, for he found in it the universality of moral law.  
A B C D

9. The new policy is more preferable to the previous one.  
A B C D

10. Of Ali and Akram, the later is a man of words and never eats his own words.  
A B C D

11. Most evergreens have needle-like leaves that require least water than regular leaves.  
A B C D

12. Perhaps, Mr. Aslam is the eldest member in our group.  
A B C D

13. Only the concerning people should attend the meeting.  
A B C D

14. The mangoes of my garden are sweeter than your garden.

A      B      C      D

In each of the following questions, four alternative sentences are given. Choose the CORRECT one and fill the circle corresponding to that letter in the MCQ Response Form.

15. A) This piece of land is more desiccated than the other tract of land on the other side.  
B) This piece of land is desiccated than the other tract of land on the other side.  
C) This piece of land is the most desiccated than the other tract of land on the other side.  
D) This piece of land is most desiccated than the other tract of land on the other side.
16. A) This is the most evasive puzzle I have ever listened about.  
B) This is most evasive puzzle I have ever listened about.  
C) This is more evasive puzzle I have ever listened about.  
D) This is a evasive puzzle I have ever listened about.
17. A) The voice of Abrar is as dulcet as, if not more dulcet than that of Atif Aslam.  
B) The voice of Abrar is as dulcet as, if not more dulcet than Atif Aslam.  
C) The voice of Abrar is as dulcet as, if not more dulcet than that of Atif Aslam's.  
D) The voice of Abrar is as dulcet, if not more dulcet than that of Atif Aslam.
18. A) What he elucidates in the class is far less comprehensive from the lectures of other teacher.  
B) What he elucidates in the class is very less comprehensive than the lectures of other teacher.  
C) What he elucidates in the class is very less comprehensive from the lectures of other teacher.  
D) What he elucidates in the class is much less comprehensive than the lectures of other teacher.
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C) If only they wouldn't use the word "hurt" I might be able to get anywhere.  
D) If only they wouldn't have used the word "hurt" I might be able to get somewhere.

**Choose the correct sentence out of four sentences given below**

23.

- (a) Of the two evils choose the least one.  
(b) Of the two evils choose the little one.  
(c) Of the two evils choose the fewer one.  
(d) Of the two evils choose the lesser one.

24. (a) He is leading a luxurious life.  
(b) He is leading a luxuriant life.  
(c) He is leading luxurious life  
(d) He is leading the luxurious life.
25. (a) I have never seen a most worse situation than this.  
(b) I have never seen a more worse situation than this.  
(c) I have never seen a much worse situation than this.  
(d) I have never seen a worst situation than this.
26. (a) People say that Mauritius is place worth-seeing.  
(b) People say that Mauritius is worth-seeing place.  
(c) People say that Mauritius is a place worth-seeing.  
(d) People say that Mauritius is a worth-seeing place.
27. (a) This house is too much big for you and your family.  
(b) This house is very much big for you and your family.  
(c) This house is much too big for you and your family.  
(d) This house is too much bigger for you and your family.
28. (a) He is the richest and most charitable man in this city.  
(b) He is the richest and a charitable man in this city.  
(c) He is the richest and the charitable man in this city.  
(d) He is the rich and a charitable man in this city.
29. (a) He had no any money to buy a book.  
(b) He had no money to buy a book.  
(c) He had no some money to buy a book  
(d) He had any money to buy a book
30. a. If he had taken into account the instruction of his father, he would not go astray.  
b. If he had taken into account, his father's instruction, he would not have gone astray.  
c. If he would have taken into account the instruction of his father, he would not have gone astray.  
d. If he had taken into account the instruction of his father, he would not have gone astray.

**STARS ACADEMY LAHORE**

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**STARS ENTRY TEST SYSTEM-2018**

Test Code : E4

Time Allowed: 30min

ENGLISH TEST

**Choose the correct word words to complete each sentence.**

- The \_\_\_\_\_ orders of the boss were ignored and the employee went on to corrupt the minds of other colleagues, too.  
A) Disingenuous  
B) Dictated  
C) Duplicitous  
D) Droll
  - The door attendant at the farewell party has \_\_\_\_\_ discretion over who can and who cannot enter the hall.  
A) Electrolytes  
B) Evanescent  
C) Dexter  
D) Discretion
  - You need to continue the pruning and trimming of bushes and \_\_\_\_\_ trees, and the destruction of virulent insects.  
A) Espalier  
B) Euphonious  
C) Arboreal  
D) Epicenter
  - The politicians often back out of their pledges since they \_\_\_\_\_ in public gatherings and the dual meanings are often elusive to the audience.  
A) Empower  
B) Equivocate  
C) Enhance  
D) Eschew

**SPOT THE ERROR:** In the following sentences some segments of each sentence are underlined. Your task is to identify that underlined segment of the sentence, which contains the mistake that needs to be corrected. Fill the circle corresponding to that letter under the segment in the MCQ Response Form.

5. I couldn't get admission in medical college because I was much complacent with my studies.  
A B C D

6. The child was fairly eating me over with her cold, steady eyes, and no expression on her face whatever.  
A B C D

7. I saw a black turtle in the Lahore zoo whose carapace was harder than any turtle.  
A B C D

8. He thought of the Gulistan as one of the bible of the world, for he found in it the universality of moral law.  
A B C D

9. The later part of the movie, Malick, is exactly emblematic of what is happening in Karachi.  
A B C D

10. If there is a more chimerical story in the world of fiction, I do not know what it would be  
A B C D

**In each of the following questions, four alternative sentences are given. Choose the CORRECT one and fill the circle corresponding to that letter in the MCQ Response Form.**

11. A) This piece of land is more desiccated than the other tract of land on the other side.  
 B) This piece of land is desiccated than the other tract of land on the other side.  
 C) This piece of land is the most desiccated than the other tract of land on the other side.  
 D) This piece of land is most desiccated than the other tract of land on the other side.
  
12. A) This is the most evasive puzzle I have ever listened about.  
 B) This is most evasive puzzle I have ever listened about.  
 C) This is more evasive puzzle I have ever listened about.  
 D) This is a evasive puzzle I have ever listened about.
  
13. A) The voice of Abrar is as dulcet as, if not more dulcet than that of Atif Aslam.  
 B) The voice of Abrar is as dulcet as, if not more dulcet than Atif Aslam.  
 C) The voice of Abrar is as dulcet as, if not more dulcet than that of Atif Aslam's.  
 D) The voice of Abrar is as dulcet, if not more dulcet than that of Atif Aslam.
  
14. A) What he elucidates in the class is far less comprehensive from the lectures of other teacher.  
 B) What he elucidates in the class is very less comprehensive than the lectures of other teacher.  
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 B) If only they wouldn't use the word "hurt" I might be able to get somewhere.  
 C) If only they wouldn't use the word "hurt" I might be able to get anywhere.  
 D) If only they wouldn't have use the word "hurt" I might be able to get somewhere.
  
19. A) His command on English language is unusually supreme and most delicate.  
 B) His command in English language is unusually most supreme and most delicate.  
 C) His command on English language is unusual supreme and most delicate  
 D) His command in English language is unusually most supreme and most delicate.
  
20. A) "Pay for the salt", said the king, "lest it shall become a custom and the village be ruined."  
 B) "Pay for the salt", said the king, "lest it would become a custom and the village be ruined."  
 C) "Pay for the salt", said the king, "lest it should become a custom and the village be ruined."  
 D) "Pay for the salt", said the king, "lest it could become a custom and the village be ruined."

21. EXCAVATE  
A) Inoculate  
 B) Mine  
C) Dwindle  
D) Abrasion
22. EUPHONIOUS  
A) Mellifluous  
B) Looming  
C) Propitiating  
D) Thorax
23. DISSONANCE  
A) Odometer  
B) Perimeter  
C) Incongruity  
D) Frothy
24. ESCHEW  
A) Taboo  
B) Unkempt  
C) Posy  
D) Abstain
25. ENNUI  
A) Carbonated  
B) Immolate  
C) Langour  
D) Spruce
26. DROLL  
A) Torment  
B) Funny  
C) Tariff  
D) Tertiary
27. DIVAGATE  
A) Deviate  
B) Reconnoiter  
C) Precipitate  
D) Fabricate
28. DISCREPENCY  
A) Felicity  
B) Sanatorium  
C) Picas  
~~D)~~ D) Disparity
29. DIFFIDENCE  
A) Hector  
B) Supination  
C) Reticence  
D) Stipulate
30. DISDAIN  
A) Pleat  
B) Tenacious  
C) Contempt  
D) Torpid

1. Which of the following molecule has trigonal planar shape?  
 A)  $NH_3$   
 B)  $BF_3$   
 C)  $PCl_3$   
 D)  $PF_5$
2. The strongest Bond among the following is  
 A) HF  
 B) HCl  
 C) HBr  
 D) HI
3. All are lewice acid except:  
 A)  $BF_3$   
 B)  $H_2O$   
 C)  $AlCl_3$   
 D)  $BeCl_2$
4. Which of the following compound has  $sp^3$  hybridization:  
 A)  $PCl_5$   
 B)  $SF_6$   
 C)  $NH_3$   
 D)  $HN=NH$
5. The chemical species having smallest bond angle:  
 A)  $NH_3$   
 B)  $NCl_3$   
 C)  $NF_3$   
 D)  $NBr_3$
6. Which of the following has distorted tetrahedral structure?  
 A)  $CCl_4$   
 B)  $H_2O$   
 C)  $SiCl_4$   
 D)  $C_2H_2$
7. Which of the following compound have maximum dipole moment?  
 A)  $CH_3 - CH_2 - CH = CH_2$   

$$\begin{array}{c} CH_3 \\ | \\ C = C \\ / \quad \backslash \\ H \quad CH_2 \end{array}$$
  
 B)  $BF_3$   
 C)  $\begin{array}{ccccc} & CH_3 & & CH_3 & \\ & \diagdown & C = C & \diagup & \\ & H & & H & \end{array}$   
 D)  $SnCl_2$
8.  $CO_2$  is isostructural with.  
 A)  $H_2S$   
 B)  $SO_2$   
 C)  $BeF_2$   
 D)  $SnCl_2$
9. Which one show positive deviation from octet rule:  
 A)  $H_2O$   
 B)  $BF_3$   
 C)  $SF_6$   
 D)  $NH_3$
10. Which one of the following can form strong sigma bond?  
 A)  $Sp^3 - Sp^3$   
 B)  $Sp - Sp$   
 C)  $Sp^2 - Sp^2$   
 D) All have same strength
11. Hybrid orbital can form:  
 A)  $\sigma$   
 B)  $\pi$   
 C) both a & b  
 D) Hybrid orbital not involve in bonding

- 12.** Which one of the following contain all types of bonds?  
 A)  $NH_4Cl$       C)  $HCl$   
 B)  $NaCl$       D)  $AlCl_3$
- 13.** Total number of valence electron of nitrogen in ammonium ion is:  
 A) 6      C) 16  
 B) 10      D) 8
- 14.** The maximum covalent character is possessed by:  
 A)  $NaCl$       C)  $LiCl$   
 B)  $CsCl$       D)  $KCl$
- 15.** When the Electronegativity difference b/w two bonded atom is 1.7 then the percentage of ionic character is  
 A) 100%      C) 72%  
 B) 50%      D) 92%
- 16.** Which of the following compound has non-directional bond?  
 A)  $BF_3$       C)  $KBr$   
 B)  $AlCl_3$       D)  $NF_3$
- 17.** Sulphur shows its valency of six in  $SF_6$  which can be explained on the basis of  
 A) Small size of sulphur atom      C) Presence of empty d-orbitals  
 B) Electron affinity      D) Electro negativity
- 18.** Which one of the following contain 100% ionic character?  
 A)  $NaCl$       C)  $NaF$   
 B)  $CsF$       D) No one contain 100% ionic character
- 19.** The number of unpaired electron in  $NH_3$ :  
 A) 0      C) 3  
 B) 1      D) 4
- 20.** How many pure covalent bonds in  $N^+H_4$  ion:  
 A) 0      C) 3  
 B) 1      D) 4
- 21.**  $Sp^2$  hybridization can explain which of the following system of VSEPR:  
 A)  $AB_2$       C)  $AB_4$   
 B)  $AB_3$       D) VSEPR is not related to hybridization
- 22.** Which one of the following contain maximum electronic repulsion?  
 A)  $CH_4$       C)  $H_2O$   
 B)  $NH_3$       D)  $SiCl_4$
- 23.** Bond will be ionic when Electronegativity difference of bonded atom  
 A) Equal to or less than 1.7      C) Greater than 1.7  
 B) Less to 1.7      D) No specificity exists
- 24.** Molecule in which  $\sigma$  bond is formed by overlap p and p orbitals  
 A)  $H_2$       C)  $F_2$   
 B)  $HF$       D)  $CH_4$
- 25.** A covalent bond with respect to its formation may be:  
 A) 100% covalent      C) 100% ionic  
 B) Partial ionic      D) Both a and b
- 26.** In which of the following molecules would you expect the nitrogen to nitrogen bond to be the shortest?  
 A)  $N_2H_4$       C)  $N_2O_4$   
 B)  $N_2$       D)  $N_2O$
- 27.** The number of sigma electrons in ethene are:  
 A) 5      C) 4  
 B) 10      D) 8

- 28.** Point out the shape and bond angles present in Boron trifluoride:  
**Shape**                    **Bond angle**  
 A) Triangular pyramidal      107°  
 B) Tetrahedral                109.5°  
 C) Triangular planar          120°  
 D) Triangular pyramidal      120°
- 29.** \_\_\_\_\_ pair of molecules will have similar shape:  
 A) SO<sub>3</sub> and PCl<sub>3</sub>            C) CO<sub>2</sub> and SO<sub>2</sub>  
 B) CdCl<sub>2</sub> and SnCl<sub>2</sub>        D) BF<sub>3</sub> and SO<sub>3</sub>
- 30.** Which of the following has different molecular geometry and electron pair geometry?  
 A) SO<sub>3</sub>                        C) CO<sub>2</sub>  
 B) SnCl<sub>2</sub>                      D) BF<sub>3</sub>
- 31.** Which of the following molecule has highest dipole moment  
 A) SO<sub>3</sub>                        C) CO<sub>2</sub>  
 B) SnCl<sub>2</sub>                      D) BF<sub>3</sub>
- 32.** Which compound is more ionic?  
 A) HF                            C) NaCl  
 B) CsCl                        D) H<sub>2</sub>O
- 33.** Structure of NH<sub>3</sub> resembles with:  
 A) H<sub>3</sub>O<sup>+</sup>                    C) BF<sub>3</sub>  
 B) N<sup>+</sup>H<sub>4</sub>                    D) SO<sub>2</sub>
- 34.** Chemical reactivity depends:  
 A) Atomic No.                C) Electronic configuration  
 B) Atomic ion                D) All
- 35.** The most important application of bond energy:  
 A) Comparing the strength of bond            C) estimating enthalpy change  
 B) Understanding structure & bonding        D) Understanding mechanism
- 36.** Select the correct order with respect to the strength:  
 A) ionic bond > metallic bond                C) ionic bond = metallic bond  
 B) ionic bond < metallic bond                D) Not related
- 37.** Both BF<sub>3</sub> and NF<sub>3</sub> are covalent but BF<sub>3</sub> molecule is non-polar while NF<sub>3</sub> is polar because  
 A) atomic size of boron is smaller than nitrogen  
 B) BF<sub>3</sub> is planar but NF<sub>3</sub> is Pyramidal  
 C) Boron is a metal while Nitrogen is gas  
 D) BF bond has no dipole moment while NF bond has dipole
- 38.** Which of the following molecules has a maximum dipole moment?  
 A) Benzene                      C) Para xylene  
 B) Meta xylene                D) Ortho xylene
- 39.** Bond energy is increases by all of the following except  
 A) %age of s character        C) Difference of E.N value  
 B) Bond order                D) Bond Length
- 40.** Shape of SnCl<sub>2</sub> is similar to  
 A) CO<sub>2</sub>                        C) HgCl<sub>2</sub>  
 B) BeCl<sub>2</sub>                      D) SO<sub>2</sub>
- 41.** An ionic compound A<sup>n-</sup>B<sup>m+</sup> is most likely to be formed when;

	Ionization Energy of A	Electron Affinity of B
A)	high	low
B)	low	high
C)	high	high
D)	low	low

- 42.** Which of the following has not tendency to form coordinate covalent bond with H<sup>+</sup>?  
 A) NH<sub>3</sub>                        C) BF<sub>3</sub>  
 B) H<sub>2</sub>O                        D) CH<sub>3</sub>OH



57. The halide having the highest melting point is  
A) NaF C) NaBr  
B) NaCl D) NaI

58. Which one of the following molecule has the smallest bond angle?  
A) H<sub>2</sub>O C) H<sub>2</sub>Se  
B) NH<sub>3</sub> D) H<sub>2</sub>S

59. Which of the following represents the lewis structure of N<sub>2</sub> molecule?  
A)  $\begin{array}{c} \times & \\ x & \text{N} \equiv \text{N}^x \end{array}$  C)  $\begin{array}{c} \times \quad \times \\ x & \text{N} \quad \text{N}^x \\ \times \quad \times \end{array}$   
B)  $\begin{array}{c} \times \quad \times \\ x & \text{N} \equiv \text{N}^x \\ \times \quad \times \end{array}$  D)  $\begin{array}{c} \times \\ x \quad \text{N} \equiv \text{N}^x \end{array}$

60. The strongest bond is  
A) C = C C) C - C  
B) C ≡ C D) C = O